



DeKalb County
Department of Purchasing and Contracting



Talisa Clark, MBA, CPPO, Interim Chief Procurement Officer

July 1, 2016

TO: ALL BIDDERS UNDER INVITATION TO BID NO. ITB No. 16-100721 for North and Northeast Ramp Pavement Improvements at DeKalb Peachtree Airport

FROM: Department of Purchasing and Contracting, DeKalb County, Georgia
For additional information, go to: <http://www.dekalbcountyga.gov>

- A. The due date for the solicitation listed above has been extended to July 18, 2016.
- B. Please replace the "Bidders Unit Price" forms with the forms contained in Attachment 1 **(Revised) Bidders Unit Price Forms.**
- C. Note: Questions regarding this Addendum will be accepted until 10:00 am on July 8, 2016, no additional questions will be accepted after that date and time.
- D. Following are responses to vendor questions and requests for clarification:

Question 1: *Tie Down Anchors – Please consider adding a bid item to remove and replace the Tie Down Anchors that are located on the ramps in place of milling/working around them.*

Answer: Pay item and detail has been added for installation of new tie down anchors. Removal is incidental to S-180. Milling around them will not be necessary.

Question 2: *Can the millings and the demoed base materials be stockpiled on site for future and later use?*

Answer: Yes, millings can be stockpiled on site for future use. Locations of stockpiles will be on the Northeast Ramp (Phase 1 area) and at the south end of RWY 3L.

Question 3: *According to the schedule of quantities, the total of paving milling is 81,000 sy, and reviewing the quantities on drawings SD1 and SD2, the total bituminous pavement removal in the places that we have to remain the stone base is 44,500 sy. Where is the location of the 36,500 sy to be milling?*

Answer: The pay items are for milling of 0"-2" and for milling 2"-4"; therefore, there are a lot of areas where both pay items apply and overlap.

LINE NO.	SPEC NO.	ITEM DESCRIPTION	EST. QTY	UNIT
28	D-701-5	FURNISH AND INSTALL 30 INCH CLASS V REINFORCED CONCRETE PIPE	474	LF
29	D-701-6	FURNISH AND INSTALL 30 INCH CLASS IV REINFORCED CONCRETE PIPE	110	LF

Question 4: Please verify quantities for the following items:
The quantities for both items are interchanged.

Answer: The pay items for D-701 will be corrected in the specification and bid schedule and should be as follows:

LINE NO.	SPEC NO.	ITEM DESCRIPTION	EST. QTY	UNIT
4	D-701-1	FURNISH AND INSTALL 18 INCH CLASS IV REINFORCED CONCRETE PIPE	205	LF
25	D-701-2	FURNISH AND INSTALL 18 INCH CLASS V REINFORCED CONCRETE PIPE	345	LF
26	D-701-3	FURNISH AND INSTALL 18 INCH HIGH-DENSITY POLYETHYLENE (HDPE) PIPE	120	LF
27	D-701-4	FURNISH AND INSTALL 24 INCH CLASS V REINFORCED CONCRETE PIPE	94	LF
28	D-701-5	FURNISH AND INSTALL 30 INCH CLASS IV REINFORCED CONCRETE PIPE	542	LF
29	D-701-6	FURNISH AND INSTALL 30 INCH CLASS V REINFORCED CONCRETE PIPE	110	LF
30	D-701-7	FURNISH AND INSTALL 36 INCH CLASS IV REINFORCED CONCRETE PIPE	284	LF

Question 5: *Can GDOT GAB be used for line no. 11 P-209-1 Crushed Aggregate base course (this is for use in the temporary taxiway)?*

Answer: **P-209 is also used as the base course for the rigid pavement section (see drawing TS-1) and is required for airfield pavement. The note on PP-2 that indicates there is reclamation under the PCC is incorrect. The typical sections are correct.**

Questions 6: *Has curing time for the reclaimed base (soil cement base course) been calculated into the scheduled days for each phase? It appears it has not, as these are very tight, almost impossible, schedules.*

Answer: **Curing time has been calculated in the schedule; however, because of the uncertainty with cold weather during this construction time, the duration of the overall project has been increased to 210 days and the individual phase durations have been increased. New phasing drawings showing this are issued with this Addendum.**

Clarifications

1. Contract time will be changed from 150 Calendar Days to 210 Calendar Days. All references to contract time should be revised to 210 Days.
2. There is now an Additive Bid No. 2 that is shown in the attached drawings and revised Bid Schedule, also attached as part of this Addendum.
3. Remove specification P-401 in its entirety and utilize GDOT-402 instead. There will be no P-401 asphalt on this project. Quantity will be shown in GDOT-402.
4. Replace specification S-180 in its entirety with the attached.
5. Replace specification D-701 in its entirety with the attached.
6. Replace specification GDOT-670 in its entirety with the attached.
7. Add specification P-621 that is included in this Addendum.
8. P-301 mix design has been completed as part of the design and is included in the Geotechnical Report. The cement content was determined to be 5% as stated in P-301. The contractor is not responsible for doing a separate mix design.
9. All phasing sheets have been updated to show barricade locations. Barricades are considered incidental to the cost of Mobilization.

10. The contractor will have the option of raising the existing inlets instead of converting them to manholes depending on condition. This affects structures 3A-EX, 4C-EX1, 4C-EX2, 4C-EX3, 4A.1-EX, 4A-EX1.
 11. All references to "Trench Drain Catch Basin" or "Slot Drain Catch Basin" on the DP Drawings refer to the Type 12 Inlet found on Drawing DD-3.
 12. All temporary pavement markings as shown on MP-3 and MP-4 are considered incidental to Mobilization.
 13. A Double Detector Check Valve has been added to the UP-1 & UD-6 Drawings. Both are included in this Addendum.
- C. If a bid has been submitted and anything in this Addendum causes the bidder to change the item offered, or to increase or decrease the bid price, the new price and / or changes will be inserted below:
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- D. It is the responsibility of each bidder to ensure that he is aware of all addenda issued under this ITB. Please sign and return this Addendum. You may contact Nancy Harrison, Procurement Agent Senior at nharrison@dekalbcountyga.gov before bids are due to confirm the number of addenda issued.
- E. All other conditions remain in full force and effect.

Nancy Harrison

Nancy Harrison, CPPO, CPPB
Procurement Agent Senior
Department of Purchasing and Contracting

**ACKNOWLEDGEMENT
ADDENDUM 1**

Date

The above Addendum is hereby acknowledged:

(Name of Bidder)

(Signature)

(Title)

NH/ph

ATTACHMENT 1

Item S-180

Item P-621

Item D-701

GDOT 670-1

REVISED Bidder's Unit Price Forms

DRAWINGS

PSPP-0

PSPP-1

PSPP-2

PSPP-3A

PSPP-3B

PSPP-4A

PSPP-4B

PSPP-5A

PSPP-5B

UD-6

SD-2

TD-1

PP-2

UP-1

ITEM S-180

PAVEMENT MILLING

DESCRIPTION

- 180-1.1** The work shall consist of milling pavements in accordance with these specifications and at locations and typical sections indicated on the drawings, or as directed by the Engineer.

EQUIPMENT

- 180-2.1** **COLD MILLING MACHINE.** Shall be a self-propelled pavement profiler with sufficient power, traction, and stability to cold mill bituminous pavements. The milling machine shall be equipped with grade and slope control systems which will automatically control the longitudinal profile and cross slope of the milled surface to an accuracy of $\pm 1/8$ -inch by the use of one or more sensors. The machine shall be capable of leaving a uniform surface without damage to the underlying pavement structure. The gross weight of the machine shall be sized and distributed to avoid overstressing or damaging the existing pavement structure or subgrade to remain. Conveyors shall be provided to transfer the milled material from the pavement to a truck.
- 180-2.2** **DUST CONTROL.** The milling equipment shall be provided with dust control devices as needed to meet local, State, and Federal pollution control regulations.
- 180-2.3** **MISCELLANEOUS.** Provide power brooms, hand brooms, shovels, vacuums, and other equipment as needed for final cleaning of milled surface and disposal of debris.

CONSTRUCTION REQUIREMENTS

- 180-3.1** **MILLING OPERATION.** The existing pavement shall be milled to the indicated depths at the locations shown on the drawings. The Contractor may elect to make multiple cuts to achieve the depth of cut or cross slope required by the drawings.
- 180-3.2** **GRADE CONTROL.** The profile and cross slope of the milled surface shall be established by string lines and an automatic cross slope control mechanism. The milled pavement surface will be subject to visual and straightedge inspection. A

10-foot straightedge shall be maintained in the vicinity of the milling operation at all times for the purpose of measuring surface irregularities of the milled pavement surface. The straightedge and labor for its use shall be provided by the Contractor. All longitudinal irregularities in excess of 1/8-inch in 10 feet shall be re-milled at no additional cost to the Owner, including the cost of any leveling material that may be needed.

The cross slope shall be uniform to a degree that no depressions or misalignment of slope greater than 1/4-inch in 10 feet are present when tested with a straightedge placed perpendicular to the centerline.

180-3.3 **PROTECTION.** The milling operation shall proceed in such a manner as to prevent damage to the underlying pavement structure, utilities, drainage structures, light fixtures, paved surfaces outside the milled area, and any other appurtenances. The milled pavement surface shall be reasonably free of excessive scarification marks or other damage as determined by the Engineer. Any leveling or patching required as a result of negligence by the Contractor shall be repaired with hot asphalt plant mix at no cost to the Owner and in a manner acceptable to the Engineer. Manholes, inlets, light fixtures, utility lines, and other existing features damaged by the Contractor's operations shall be repaired or replaced at the expense of the Contractor. The Engineer may require re-milling any area where surface laminations or defects resulting from the Contractor's operations cause a non-uniform surface.

180-3.4 **CLEAN-UP.** The milled pavement surface shall be thoroughly cleaned of all loose aggregate particles, dust, mill cuttings, and other objectionable material. Cuttings not immediately picked up during milling and removal operations shall be promptly removed by power brooming, vacuuming, blowing, or other means as necessary; this clean-up shall be done before traffic or construction equipment is allowed to re-compact and re-bond loose milling residue to the milled surface.

180-3.5 **DUST AND HAZARD CONTROL.** The pavement removal operations shall be conducted to effectively control within regulations the amount of dust being emitted. The operation shall be planned and conducted so that it is safe for persons and property adjacent to the work including the traveling public.

180-3.6 **DISPOSAL.** The material removed by means of milling shall be ground and graded to AASHTO M-145-91, Group A-1 Classification. Milled asphalt material is proposed to remain on-site and placed on access roads on airport property or

mixed with soil for use as fill material as directed by Engineer. Asphalt material will be inspected and approved by Engineer or Owner's representative. If material is not accepted for use on access roads or fill material contractor shall, at his/her own expense, remove all material and legally dispose of material off-site.

METHOD OF MEASUREMENT

- 180-4.1** The quantity of milled pavements to be paid for will be the actual number of square yards of milled pavement surface approved, completed, and accepted. Milling in multiple cuts will be counted as one surface, not multiple surfaces. Existing tie-down anchors shall be removed completely and all costs shall be incidental to pavement milling.

BASIS OF PAYMENT

- 180-5.1** Milled pavement, measured as defined above, will be paid for at the contract unit price bid per square yard. Such payment shall be full compensation for all work covered by this section, including but not limited to milling the pavement, cleaning the milled surface, loading, hauling, and disposal of all milled material and for all materials, labor, equipment, tools, and incidentals necessary for satisfactory performance of the work.

Payment will be made under:

Item S-180-1 Pavement Milling, 0"-2" Depth, Incl. Mill-ties
per Square Yard.

Item S-180-2 Pavement Milling, 2"-4" Depth, Incl. Mill-ties
per Square Yard.

END OF ITEM S-180

**ITEM P-621
TIE DOWN ANCHORS**

DESCRIPTION

- 621-1.1** This item shall consist of furnishing and installing tie-down anchors and re-installing cables in accordance with these specifications and details in the plans and at the locations shown on the plans or required by the Engineer.

MATERIALS

- 621-2.1** **TIE-DOWN ANCHORS.** Tie down anchors shall be one inch diameter hot dipped galvanized power pole guy wire anchors, A. B. Chance catalog number 816 or equal, as shown on drawings.
- 621-2.2** **CONCRETE.** Concrete shall have a compressive strength of not less than 3,500 psi at 28 days and shall conform to the requirements of Item P-610.
- 621-2.3** **SUBMITTAL.** The Contractor shall submit shop drawings to the Engineer at least 14 days prior to installation.

CONSTRUCTION METHODS

- 621-3.1** **TIE-DOWN ANCHORS.** Tie-down anchors and concrete bases shall be constructed in accordance with the lines, grades, and dimensions shown on the plans. Depressions in concrete surfaces shall be formed or troweled to the required shape and shall be finished to neat and true lines.

The anchors shall be installed by removing the asphalt pavement surface, base course, and subgrade to the dimensions required, augering in the anchor, and backfilling with concrete; or by other methods approved by the Engineer. The procedures used in installing the anchor shall not be injurious to the pavement and shall be approved by the Engineer before proceeding with the work.

- 621-3.2** **DEFECTIVE WORKMANSHIP OR MATERIAL.** All material and workmanship not conforming to the requirements of the plans and specifications shall be considered defective and shall be corrected as directed by the Engineer at the expense of the Contractor.

METHOD OF MEASUREMENT

- 621-4.1** Tie-down anchors shall be measured by the unit, complete, in place, and accepted by the Engineer.
- 621-4.2** Reinstallation of Aircraft Anchor Cable shall not be measured for payment.

BASIS OF PAYMENT

- 621-5.1** Payment shall be made at the contract unit price per each completed tie-down anchor including concrete base. The unit price shall be full compensation for furnishing all materials and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item P-621-1 Tie-Down Anchor -- per Each

TESTING AND MATERIAL REQUIREMENTS

- | | |
|---------------|---|
| ASTM A 123 | Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products |
| ASTM A 615 | Deformed and Plain Billet-Steel Bars for Concrete Reinforcement |
| ANSI/AWS D1.4 | Structural Welding Code - Reinforcing Steel |

END OF ITEM P-621

ITEM D-701

PIPE FOR STORM DRAINS AND CULVERTS

DESCRIPTION

- 701-1.1** This item shall consist of the construction of pipe culverts and storm drains in accordance with these specifications and in reasonably close conformity with the lines and grades shown on the plans.

MATERIALS

- 701-2.1** Materials shall meet the requirements shown on the plans and specified below. All concrete pipes shall be CPT stamped.
- 701-2.2** **PIPE.** The pipe shall be of the type called for on the plans or in the proposal and shall be in accordance with the following appropriate requirements: All joints shall have gaskets. Fittings and specials, when required, shall conform to applicable requirements and strength specified for pipes.

American Association of State Highway and Transportation Officials (AASHTO)
M167 Standard Specification for Corrugated Steel Structural Plate,
Zinc-Coated, for Field-Bolted Pipe, Pipe-Arches, and Arches

AASHTO M252 Standard Specification for Corrugated Polyethylene Drainage Pipe

AASHTO M294 Standard Specification for Corrugated Polyethylene Pipe, 300- to
1500-mm (12- to 60-in.) Diameter

ASTM C76 Standard Specification for Reinforced Concrete Culvert, Storm
Drain, and Sewer Pipe

ASTM C506 Standard Specification for Reinforced Concrete Arch Culvert,
Storm Drain, and Sewer Pipe

ASTM C655 Standard Specification for Reinforced Concrete D-Load Culvert,
Storm Drain, and Sewer Pipe

ASTM C1433	Standard Specification for Precast Reinforced Concrete Monolithic Box Sections for Culverts, Storm Drains, and Sewers
ASTM F667	Standard Specification for 3 through 24 in Corrugated Polyethylene Pipe and Fittings
ASTM F714	Standard Specification for Polyethylene (PE) Plastic Pipe (DR-PR) Based on Outside Diameter
ASTM F894	Standard Specification for Polyethylene (PE) Large Diameter Profile Wall Sewer and Drain Pipe
ASTM F2435	Standard Specification for Steel Reinforced Polyethylene (PE) Corrugated Pipe

- A. Reinforced Concrete Pipe: Class III, Class IV, and Class V as indicated on drawings.
- B. Perforated Corrugated Polyethylene Drainage Pipe, 3 to 10 inch Diameter: Type CP. Perforated CPP shall be furnished with a nonwoven filter fabric wrap.
- C. Corrugated Polyethylene Drainage Pipe, 3 to 10 inch Diameter: Type C.
- D. Corrugated Polyethylene Drainage Pipe, 12-48 inch Diameter: Type C.

701-2.3 **CONCRETE.** Concrete for pipe cradles shall have a minimum compressive strength of 2000 psi (13.8 MPa) at 28 days and conform to the requirements of ASTM C94.

701-2.4 **RUBBER GASKETS.** Rubber gaskets for rigid pipe shall conform to the requirements of ASTM C443. Rubber gaskets for PVC pipe, polyethylene, and polypropylene pipe shall conform to the requirements of ASTM F477. Rubber gaskets for zinc-coated steel pipe and precoated galvanized pipe shall conform to the requirements of ASTM D1056, for the "RE" closed cell grades. Rubber gaskets for steel reinforced thermoplastic ribbed pipe shall conform to the requirements of ASTM F477.

701-2.5 **JOINT MORTAR.** Pipe joint mortar shall consist of one part Portland cement and two parts sand, by volume. The Portland cement shall conform to the requirements of ASTM C150, Type I. The sand shall conform to the requirements of ASTM C144.

701-2.6 **JOINT FILLERS.** Poured filler for joints shall conform to the requirements of ASTM D6690.

701-2.7 **PLASTIC GASKETS.** Plastic gaskets shall conform to the requirements of AASHTO M198 (Type B).

701-2.8. **CONTROLLED LOW-STRENGTH MATERIAL (CLSM).** CLSM is not allowed.

701-2.9 **FILTER FABRIC MATERIAL.** The filter fabric for Perforated Corrugated Polyethylene Pipe shall be a nonwoven needle punched fabric composed of strong rot-proof synthetic fibers. The fabric shall be free of any treatment or coating which might alter its physical properties after installation. The fabric shall contain stabilizers and/or inhibitors to make the filaments resistant to deterioration resulting from exposure to sunlight or heat. The fabric shall be oriented into a stable network so that the fibers retain their relative position with respect to each other. The edges of the fabric shall be free of defects or flawed properties. Sheets of fabric may be sewn or bonded together. No deviation from any physical requirements will be permitted due to the presence of the seam.

The fabric shall meet the physical requirements specified in Table 1. All strength requirements indicated are minimum average roll values in the weakest principal direction.

TABLE 1 REQUIREMENTS FOR FILTER FABRIC		
Physical Property	Test Method	Requirements
Grab Strength	ASTM D 4632	120 lb. min.
Grab Elongation	ASTM D 4632	80% max.
Puncture Strength	ASTM D 4833	45 lb. min.
Apparent Opening Size	ASTM D 4751	60 max./100 min.
Weight	ASTM D 3776	4 oz./s.y. min.

The Contractor shall furnish certified test reports with each shipment of material attesting that the fabric meets the requirements of this specification.

Anchor pins shall be steel, 3/16 inch in diameter, pointed at one end, and fabricated with a head to retain a steel washer having an outside diameter of no less than 1.5 inches.

- 701-2.10** **GDOT #57 STONE.** The stone shall meet the requirements of D-753, Rip Rap, e Contractor shall provide certification that stone meets gradation requirements for the #57 size.

CONSTRUCTION METHODS

- 701-3.1** **EXCAVATION.** The Contractor shall perform all common excavation to the depth shown on the drawings. Common excavation shall consist of all excavation required to install piping as specified herein. Excavated material not required or acceptable for backfill shall be disposed of by the Contractor as directed by the Engineer. Common excavation shall not be carried below the required depth, but when it is, the trench shall be backfilled at the Contractor's expense with material approved by the Engineer and compacted to the density of the surrounding earth material as determined by methods specified in Item P-152.

The width of the pipe trench shall be sufficient to permit satisfactory jointing of the pipe and thorough tamping of the bedding material under and around the pipe, but it shall not be less than the external diameter of the pipe plus 6 inches (150 mm) on each side. The trench walls shall be approximately vertical.

The Contractor shall comply with all current Federal, state and local rules and regulations governing the safety of men and materials during the excavation, installation and backfilling operations. Specifically, the Contractor shall observe that all requirements of the Occupational Safety and Health Administration (OSHA) relating to excavations, trenching and shoring are strictly adhered to. The width of the trench shall be sufficient to permit satisfactorily jointing of the pipe and thorough compaction of the bedding material under the pipe and backfill material around the pipe, but it shall not be greater than the widths shown on the plans trench detail. The trench bottom shall be shaped to fully and uniformly support the bottom quadrant of the pipe. The contractor is responsible for obtaining a trench safety plan, signed and sealed by a professional engineer, in accordance with this section.

Where rock, hardpan, or other unyielding material is encountered, the Contractor shall remove it from below the foundation grade for a depth of at least 8 inch (200 mm) or 1/2 inch (12 mm) for each foot of fill over the top of the pipe (whichever is greater) but for no more than three-quarters of the nominal diameter of the pipe. The excavation below grade shall be backfilled with selected fine compressible material, such as silty clay or loam, and lightly compacted in layers not over 6 inches (150 mm) in uncompacted depth to form a uniform but yielding foundation.

Where a firm foundation is not encountered at the grade established, due to soft, spongy, or other unstable soil, the unstable soil shall be removed and replaced with approved granular material for the full trench width. The Engineer shall determine the depth of removal necessary. The granular material shall be compacted to provide adequate support for the pipe. The cost of removing unstable soil shall be included in the unit price bid per foot for pipe.

The excavation for pipes placed in embankment fill shall not be made until the embankment has been completed to a height above the top of the pipe as shown on the plans.

701-3.2 **BEDDING.** The pipe bedding shall conform to the class specified on the plans. The bedding surface for the pipe shall provide a firm foundation of uniform density throughout the entire length of the pipe. When no bedding class is specified or detailed on the plans, the requirements for Class C bedding shall apply. The cost of bedding material and associated work shall be incidental to the price for linear foot of pipe to be laid.

A. **Rigid pipe.** Class A bedding shall consist of a continuous concrete cradle conforming to the plan details.

Class B bedding shall consist of a bed of granular material having a thickness of at least 6 inches (150 mm) below the bottom of the pipe and extending up around the pipe for a depth of not less than 50% of the pipe's vertical outside diameter. The layer of bedding material shall be shaped to fit the pipe for at least 5% of the pipe's vertical diameter and shall have recesses shaped to receive the bell of bell and spigot pipe. The bedding material shall be sand or select sandy soil with 100% passing a 3/8 inch (9 mm) sieve and not more than 10% passing a No. 200 (0.075 mm) sieve or the material shall be GDOT #57 stone as shown on the plans.

Class C bedding shall consist of bedding the pipe in its natural foundation material to a depth of not less than 5% of the pipe's vertical outside diameter. The bed shall be shaped to fit the pipe and shall have recesses shaped to receive the bell of bell and spigot pipe.

B. **Flexible pipe.** For flexible pipe, the bed shall be roughly shaped to fit the pipe, and a bedding blanket of sand or fine granular material shall be provided as follows:

Pipe Corrugation Depth		Minimum Bedding Depth	
inch	mm	inch	mm
1/2	12	1	25
1	25	2	50
2	50	3	75
2-1/2	60	3-1/2	90

- C. **PVC, polyethylene, and polypropylene pipe.** For PVC, polyethylene, and polypropylene pipe, the bedding material shall consist of coarse sands and gravels with a maximum particle size of 3/4 inches (19 mm). For pipes installed under paved areas, no more than 12% of the material shall pass the No. 200 (0.075 mm) sieve. For all other areas, no more than 50% of the material shall pass the No. 200 (0.075 mm) sieve. The bedding shall have a thickness of at least 6 inches (150 mm) below the bottom of the pipe and extend up around the pipe for a depth of not less than 50% of the pipe's vertical outside diameter.

701-3.3 LAYING PIPE. The Contractor shall provide the necessary lines and supports to ensure the installation of the pipe to line and grade shown on the drawings. Contractor's facilities for lowering the pipe into the trench shall be such that neither the pipe nor the trench will be damaged or disturbed. The Engineer shall inspect all pipe before it is laid, and reject any section that is damaged or is defective to a degree which will materially affect the function and service of the pipe.

The pipe laying shall begin at the lowest point of the trench and proceed upgrade. The lower segment of the pipe shall be in contact with the bedding throughout its full length, exclusive of the bell. When bell and spigot pipes are used, spaces for the pipe bells shall be dug into the pipe subgrade. These spaces shall be deep enough to ensure that the bells do not bear the load of the pipe; they shall not be excessively wide in relation to the direction of the trench. Bell or groove ends of rigid pipes and outside circumferential laps of flexible pipes shall be placed facing upgrade.

The pipe shall be firmly and accurately set to line and grade so that the invert will be smooth and uniform. The pipe shall be protected from water during placing. The Contractor shall provide, as may be necessary, for the temporary diversion of stream flow or storm runoff in order to permit the installation of the pipe under dry conditions. If required, the Contractor shall pump area around pipe installation as

needed to install the pipe. This shall be done at no additional cost. Pipe shall not be laid on frozen ground. Pipe which is not true in alignment, or which shows any settlement after laying, shall be taken up and relaid without extra compensation.

Paved or partially lined pipe shall be placed so that the longitudinal center line of the paved segment coincides with the flow line.

Elliptical and elliptically reinforced concrete pipes shall be placed with the manufacturer's reference lines designating the top of the pipe within five degrees of a vertical plane through the longitudinal axis of the pipe.

Except as specified otherwise herein, corrugated polyethylene pipe shall be installed in accordance with the manufacturers printed instructions.

On perforated pipe, the contractor shall install wyes and bends as necessary to provide a network of springhead underdrain pipes to aid in the function of the spring box. The perforated pipe network shall be outfalled adjacent to the spring box outlet pipe. The use of the perforated pipe network shall be at the discretion of the Engineer.

701-3.4 **JOINING PIPE.** Joints shall be made with (1) Portland cement mortar, (2) Portland cement grout, (3) rubber gaskets, (4) plastic gaskets, or (5) coupling bands.

Mortar joints shall be made with an excess of mortar to form a continuous bead around the outside of the pipe and shall be finished smooth on the inside. Molds or runners shall be used for grouted joints to retain the poured grout. Rubber ring gaskets shall be installed to form a flexible watertight seal.

- A. **Concrete pipe.** Concrete pipe may be either bell and spigot or tongue and groove. The method of joining pipe sections shall be so the ends are fully entered and the inner surfaces are reasonably flush and even. Joints shall be made with rubber gaskets to form a flexible watertight seal. Pipes with leaking or defective joints shall be removed and reset properly at the sole cost of the Contractor. Joints shall be thoroughly wetted before applying mortar or grout.

When bell and spigot pipes are used, spaces for the pipe bells shall be dug into the pipe subgrade to accommodate the bells. These spaces shall be deep enough to ensure that the bells do not bear the load of the pipe; they shall not be excessively wide in relation to the longitudinal direction of the trench. When the pipes are laid, the barrel of each section of pipe shall be in contact with the specified shaped

bedding throughout its full length, exclusive of the bell, to support the entire load of the pipe.

- B. **Metal pipe.** Metal pipe shall be firmly joined by form-fitting bands conforming to the requirements of ASTM A760 for steel pipe and AASHTO M196 for aluminum pipe.
- C. **PVC, polyethylene and polypropylene pipe.** Joints for PVC, Polyethylene, and Polypropylene pipe shall conform to the requirements of ASTM D3212 when water tight joints are required. Joints for PVC and Polyethylene pipe shall conform to the requirements of AASHTO M304 when soil tight joints are required. Fittings for polyethylene pipe shall conform to the requirements of AASHTO M252 or ASTM M294. Fittings for polypropylene pipe shall conform to ASTM F2881, ASTM F2736, or ASTM F2764.

Concrete collars are required at the joints where CPP and CPP elbows intersect on berm down drain units, and may

701-3.5 **BACKFILLING.** Pipes shall be inspected before any backfill is placed; any pipes found to be out of alignment, unduly settled, or damaged shall be removed and relaid or replaced at the Contractor's expense.

Material for backfill shall be fine, readily compatible soil or granular material selected from the excavation or a source of the Contractor's choosing. It shall not contain frozen lumps, stones that would be retained on a 2-inch (50 mm) sieve, chunks of highly plastic clay, or other objectionable material. Granular backfill material shall have 95% or more passing the a 1/2 inch (12 mm) sieve, with 95% or more being retained on the No. 4 (4.75 mm) sieve. Backfill material shall be approved by the Engineer.

When the top of the pipe is even with or below the top of the trench, the backfill shall be compacted in layers not exceeding 6 inches (150 mm) on each side of the pipe and shall be brought up one foot (30 cm) above the top of the pipe or to natural ground level, whichever is greater. Thoroughly compact the backfill material under the haunches of the pipe without displacing the pipe. Material shall be brought up evenly on each side of the pipe for the full length of the pipe.

When the top of the pipe is above the top of the trench, the backfill shall be compacted in layers not exceeding 6 inches (150 mm) and shall be brought up evenly

on each side of the pipe to one foot (30 cm) above the top of the pipe. The width of backfill on each side of the pipe for the portion above the top of the trench shall be equal to twice the pipe's diameter or 12 feet (3.7 m), whichever is less.

For PVC, polyethylene, and polypropylene pipe, the backfill shall be placed in two stages; first to the top of the pipe and then at least 12 inches (300 mm) over the top of the pipe. The backfill material shall meet the requirements of paragraph 701-3.2c.

All backfill shall be compacted to the density required under Item P-152.

It shall be the Contractor's responsibility to protect installed pipes and culverts from damage due to construction equipment operations. The Contractor shall be responsible for installation of any extra strutting or backfill required to protect pipes from the construction equipment. Any pipe damaged by construction equipment shall be replaced at the expense of the Contractor.

701-3.6 **EQUIPMENT.** All equipment necessary and required for the proper construction of storm sewers and culverts shall be on the project, in first class working condition and approved by the Engineer before construction is permitted to start. The Contractor shall provide appropriate hoisting equipment to handle the pipe while unloading and placing it in its final position without damage to the pipe or trench. The Contractor shall provide pneumatic tampers or other approved compacting equipment to obtain the required compaction of the pipe bed and backfill.

701-3.7 **CONNECTIONS.** Where the plans call for connection to existing or proposed structures, the connections shall be made watertight and made so that smooth uniform flow lines will be obtained throughout the drainage system. Connections shall be mortared or concreted as indicated on the drawings or made with a non-shrink patch compound or shall be made of resilient material meeting the requirements of ASTM C 923. The method used in making the connections shall be acceptable to the Engineer. When used, mortar for making connections shall be of the consistency needed for caulking and filling between the pipe and the drainage structures. Mortar that is not used within 45 minutes after water has been added shall be discarded. Re-tempering of mortar shall not be permitted. Contractor shall verify dimensions of structures to be connected to insure proposed pipe will fit properly.

- 701-3.8** **CLEANING AND RESTORATION OF SITE.** After backfill is completed, the Contractor shall dispose of all surplus material, dirt, and rubbish from the site at no additional cost to the Project. Surplus dirt may be deposited in embankments and shoulders as approved by the Engineer. The Contractor shall restore all disturbed areas to their original condition except where indicated otherwise.

METHOD OF MEASUREMENT

- 701-4.1** The length of pipe shall be measured in linear feet (m) of pipe in place, completed, and approved. It shall be measured along the centerline of the pipe from end or inside face of structure to the end or inside face of structure, whichever is applicable. The several classes, types and size shall be measured separately. All fittings shall be included in the footage as typical pipe sections in the pipe being measured.
- 701-4.2** The cost of concrete collars, wyes, and bends necessary for Corrugated Polyethylene Pipe shall be incidental to the cost of the pipe. The granular backfill and filter fabric required for Perforated Corrugated Polyethylene Pipe shall be incidental to the cost of the pipe.

BASIS OF PAYMENT

- 701-5.1** Payment will be made at the contract unit price per linear foot (meter) for each kind of pipe of the type and size designated.

These prices shall fully compensate the Contractor for furnishing all materials and for all preparation, excavation, bedding, and installation of these materials; and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item D-701-1	Furnish and Install 18 inch Class IV Reinforced Concrete Pipe, per linear foot
Item D-701-2	Furnish and Install 18 inch Class V Reinforced Concrete Pipe, per linear foot
Item D-701-3	Furnish and Install 18 inch High-Density Polyethylene (HDPE) Pipe, per linear foot

Item D-701-4	Furnish and Install 24 inch, Class V Reinforced Concrete Pipe, per linear foot
Item D-701-5	Furnish and Install 30 inch, Class IV Reinforced Concrete Pipe, per linear foot
Item D-701-6	Furnish and Install 30 inch, Class V Reinforced Concrete Pipe, per linear foot
Item D-701-7	Furnish and Install 36 inch, Class IV Reinforced Concrete Pipe, per linear foot

MATERIAL REQUIREMENTS

AASHTO M167	Standard Specification for Corrugated Steel Structural Plate, Zinc-Coated, for Field-Bolted Pipe, Pipe-Arches, and Arches
AASHTO M190	Standard Specification for Bituminous-Coated Corrugated Metal Culvert Pipe and Pipe Arches
AASHTO M196	Standard Specification for Corrugated Aluminum Pipe for Sewers and Drains
AASHTO M198	Standard Specification for Joints for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants
AASHTO M219	Standard Specification for Corrugated Aluminum Alloy Structural Plate for Field-Bolted Pipe, Pipe-Arches, and Arches
AASHTO M243	Standard Specification for Field Applied Coating of Corrugated Metal Structural Plate for Pipe, Pipe-Arches, and Arches
AASHTO M252	Standard Specification for Corrugated Polyethylene Drainage Pipe
AASHTO M294	Standard Specification for Corrugated Polyethylene Pipe, 300- to 1500-mm (12- to 60-in.) Diameter
AASHTO M304	Standard Specification for Poly (Vinyl Chloride) (PVC) Profile Wall Drain Pipe and Fittings Based on Controlled Inside Diameter

AASHTO MP20	Standard Specification for Steel Reinforced Polyethylene (PE) Ribbed Pipe, 300- to 900-mm (12- to 36-in.) Diameter
ASTM A760	Standard Specification for Corrugated Steel Pipe, Metallic Coated for Sewers and Drains
ASTM A761	Standard Specification for Corrugated Steel Structural Plate, Zinc Coated, for Field-Bolted Pipe, Pipe-Arches, and Arches
ASTM A762	Standard Specification for Corrugated Steel Pipe, Polymer Precoated for Sewers and Drains
ASTM A849	Standard Specification for Post-Applied Coatings, Pavings, and Linings for Corrugated Steel Sewer and Drainage Pipe
ASTM B745	Standard Specification for Corrugated Aluminum Pipe for Sewers and Drains
ASTM C14	Standard Specification for Nonreinforced Concrete Sewer, Storm Drain, and Culvert Pipe
ASTM C76	Standard Specification for Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
ASTM C94	Standard Specification for Ready Mixed Concrete
ASTM C144	Standard Specification for Aggregate for Masonry Mortar
ASTM C150	Standard Specification for Portland Cement
ASTM C443	Standard Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets
ASTM C506	Standard Specification for Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe
ASTM C507	Standard Specification for Reinforced Concrete Elliptical Culvert, Storm Drain and Sewer Pipe

ASTM C655	Standard Specification for Reinforced Concrete D-Load Culvert, Storm Drain and Sewer Pipe
ASTM C1433	Standard Specification for Precast Reinforced Concrete Monolithic Box Sections for Culverts, Storm Drains, and Sewers
ASTM D1056	Standard Specification for Flexible Cellular Materials Sponge or Expanded Rubber
ASTM D3034	Standard Specification for Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings
ASTM D3212	Standard Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals
ASTM D6690	Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements
ASTM F477	Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe
ASTM F667	Standard Specification for 3 through 24 in. Corrugated Polyethylene Pipe and Fittings
ASTM F714	Standard Specification for Polyethylene (PE) Plastic Pipe (DR PR) Based on Outside Diameter
ASTM F794	Standard Specification for Poly (Vinyl Chloride) (PVC) Profile Gravity Sewer Pipe & Fittings Based on Controlled Inside Diameter
ASTM F894	Standard Specification for Polyethylene (PE) Large Diameter Profile Wall Sewer and Drain Pipe
ASTM F949	Standard Specification for Poly (Vinyl Chloride) (PVC) Corrugated Sewer Pipe With a Smooth Interior and Fittings
ASTM F2435	Standard Specification for Steel Reinforced Polyethylene (PE) Corrugated Pipe

ASTM F2562	Specification for Steel Reinforced Thermoplastic Ribbed Pipe and Fittings for Non-Pressure Drainage and Sewerage
ASTM F2736	Standard Specification for 6 to 30 in. (152 to 762 mm) Polypropylene (PP) Corrugated Single Wall Pipe and Double Wall Pipe
ASTM F2764	Standard Specification for 30 to 60 in. (750 to 1500 mm) Polypropylene (PP) Triple Wall Pipe and Fittings for Non-Pressure Sanitary Sewer Applications
ASTM F2881	Standard Specification for 12 to 60 in. (300 to 1500 mm) Polypropylene (PP) Dual Wall Pipe and Fittings for Non-Pressure Storm Sewer Applications

END ITEM D-701

GDOT SECTION 670

WATER DISTRIBUTION SYSTEM

670.01 **GENERAL:** Add the following adjustments and clarifications to GDOT Section 670 of the Georgia Department of Transportation “Standard Specifications of Construction of Transportation Systems, 2013 Edition.”

670.02 **DESCRIPTION:** This item shall consist of furnishing and installing pipes and valves typically associated with a water distribution system. Items shall be made of materials consistent with a water distribution system, and installed in a method consistent with the specification and as approved by the engineer.

670.03 **BASIS OF MEASUREMENT AND PAYMENT:** The Contract Unit Price for each Item, complete and accepted, will include all costs incidental to the construction of the Item according to the Plans and as specified in this Section.

The Unit Prices bid will include due allowance for the salvage value of all materials removed from existing or temporary lines, and not installed in the completed work. All such surplus items will become the property of the Contractor unless otherwise specified.

Payment for any Item listed below is full compensation for the Item or Items, complete in place. When placing water mains or service lines in casings, receive separate payment for the cost of furnishing and installing the casings.

A. Water Main Pipe

These will be paid for at the Contract Unit Price per linear foot (meter) for each size of pipe installed. Payment is full compensation for furnishing all materials including fittings, excavating, backfilling, removing, and replacing pavement, testing and sterilizing, and providing other incidentals necessary to complete the Item. Payment will also include the cost of laying pipe in casing when required.

B. Gate Valves

These will be paid for at the Contract Unit Price per each for each size of valve installed, complete in place, including the box, if required. Payment will include material and labor for joint connections.

C. Tapping Sleeve and Valve Assemblies

These will be paid for at the Contract Unit Price per each size installed, complete in place, including materials and labor for joint connections.

D. Fire Hydrants

These will be paid for at the Contract Unit Price per each hydrant installed, complete in place, including vertical extensions, joint connections, pipe straps, crushed stone drain, and other incidentals necessary to complete the Item.

E. Concrete Blocking

This will not be paid for separately but considered incidental to GDOT 670-1. This will include excavating, backfilling, forming, and performing necessary Work incidental to placing concrete blocking according to the Plans, or as specified.

Payment will be under:

GDOT 670-1	Water Main, 8-Inch Ductile Iron Pipe -- Per Linear Foot.
GDOT 670-2	Gate Valve, 8-inch -- per Each
GDOT 670-3	Tapping Sleeve and Valve, 8-inch -- Per Each
GDOT 670-4	Fire Hydrant -- per Each
GDOT 670-5	Install Double Detector Check Valve Assembly, with Vault -- Per Each

END OF SECTION 670

REVISED

BIDDER'S UNIT PRICE

TO: The Governing Authority of DeKalb County, Georgia

The undersigned, as Bidder, declares that he has carefully examined ITB No. 16-100721, North and Northeast Ramp Pavement Improvements, an annexed proposed form of Contract, the Specifications therein contained, and the Drawings therein referred to, and that he proposes and agrees that if his Bid is accepted, to provide the necessary machinery, tools, apparatus, and other means of construction, and will furnish all materials and labor specified in the Contract, or called for by the Drawings, or necessary to complete the Work in the manner therein specified within the time specified, as therein set forth for the unit prices on the form following this page. If the Bidder's Unit Price exceeds one page in length it should be completed in an excel format, typewritten, printed out and attached hereto. Handwritten Unit Prices exceeding one page in length may not be accepted and may result in the proposed Bid being deemed non-responsive.

REVISED**BIDDER'S UNIT PRICE FORM****BASE BID**

LINE NO.	SPEC NO.	ITEM DESCRIPTION	EST. QTY	UNIT	UNIT PRICE	AMOUNT
1	01000	MOBILIZATION	1	LS	\$	\$
2	01510	ENGINEERS FIELD COMPLEX	1	LS	\$	\$
3	S-140-1	REMOVE EXISTING DRAINAGE STRUCTURE	27	EA	\$	\$
4	S-140-2	REMOVE EXISTING DRAINAGE PIPE	3,170	LF	\$	\$
5	S-140-3	REMOVE EXISTING TRENCH DRAIN	1,800	LF	\$	\$
6	S-140-4	REMOVE ASPHALT PAVEMENT, INCLUDING BASE MATERIAL	9,200	SY	\$	\$
7	S-160-1	STERILIZATION OF PAVEMENT CRACKS	1	LS	\$	\$
8	S-180-1	PAVEMENT MILLING, 0"-2" DEPTH, INCL. MILL TIES	47,150	SY	\$	\$
9	S-180-2	PAVEMENT MILLING, 2" – 4" DEPTH, INCL. MILL TIES	33,850	SY	\$	\$
10	P-152-1	UNCLASSIFIED EXCAVATION	785	CY	\$	\$
11	P-209-1	CRUSHED AGGREGATE BASE COURSE	1,350	CY	\$	\$
12	P-301-1	9 INCH SOIL-CEMENT BASE COURSE	6,125	SY	\$	\$
13	P-301-2	6 INCH SOIL-CEMENT BASE COURSE	29,000	SY	\$	\$
14	P-301-3	PORTLAND CEMENT	400	TON	\$	\$
15	P-501-1	PORTLAND CEMENT CONCRETE PAVEMENT	5,300	SY	\$	\$
16	P-603-1	BITUMINOUS TACK COAT	5,150	GAL	\$	\$
17	P-620-1	PAVEMENT MARKING, WHITE, REFLECTIVE	990	SF	\$	\$
18	P-620-2	PAVEMENT MARKING, YELLOW, REFLECTIVE	8,720	SF	\$	\$
19	P-620-3	PAVEMENT MARKING, BLACK, NON-REFLECTIVE	1,670	SF	\$	\$
20	P-620-4	PAVEMENT MARKING, RED, REFLECTIVE	360	SF	\$	\$
21	P-621-1	TIE-DOWN ANCHOR	160	EA	\$	\$
22	P-632-1	ASPHALT REJUVENATION	3,660	SY	\$	\$

LINE NO.	SPEC NO.	ITEM DESCRIPTION	EST. QTY	UNIT	UNIT PRICE	AMOUNT
23	P-640-1	GEOTEXTILE REINFORCEMENT	5,300	SY	\$	\$
24	D-701-1	FURNISH AND INSTALL 18 INCH CLASS IV REINFORCED CONCRETE PIPE	205	LF	\$	\$
25	D-701-2	FURNISH AND INSTALL 18 INCH CLASS V REINFORCED CONCRETE PIPE	345	LF	\$	\$
26	D-701-3	FURNISH AND INSTALL 18 INCH HIGH-DENSITY POLYETHYLENE (HDPE) PIPE	120	LF	\$	\$
27	D-701-4	FURNISH AND INSTALL 24 INCH CLASS V REINFORCED CONCRETE PIPE	94	LF	\$	\$
28	D-701-5	FURNISH AND INSTALL 30 INCH CLASS IV REINFORCED CONCRETE PIPE	542	LF	\$	\$
29	D-701-6	FURNISH AND INSTALL 30 INCH CLASS V REINFORCED CONCRETE PIPE	110	LF	\$	\$
30	D-701-7	FURNISH AND INSTALL 36 INCH CLASS IV REINFORCED CONCRETE PIPE	284	LF	\$	\$
31	D-702-1	18 INCH 14 GAUGE STEEL SLOTTED DRAIN	1,616	LF	\$	\$
32	D-751-1	MANHOLE	1	EA	\$	\$
33	D-751-2	AIRCRAFT RATED DROP INLET	31	EA	\$	\$
34	D-751-3	ADJUST EXISTING DRAINAGE STRUCTURE	6	EA	\$	\$
35	E-891-1	INLET PROTECTION	57	EA	\$	\$
36	E-891-2	MAINTENANCE OF INLET PROTECTION	57	EA	\$	\$
37	EC-1-1	SEDIMENT BARRIER COMPOST FILTER SOCK	3,600	LF	\$	\$
38	EC-1-2	MAINTAIN SEDIMENT BARRIER COMPOST FILTER SOCK	3,600	LF	\$	\$
39	F-162-1	CHAIN LINK FENCE	50	LF	\$	\$
40	T-901-1	SEEDING	1	ACRE	\$	\$
41	GDOT 165-0030	MAINTENANCE OF TEMPORARY SILT FENCE TYPE C	2,200	LF	\$	\$
42	GDOT 167-1000	WATER QUALITY MONITORING AND SAMPLING	3	EA	\$	\$
43	GDOT 167-1500	WATER QUALITY INSPECTIONS	6	PER MO	\$	\$
44	GDOT 171-0030	SILT FENCE, TYPE C	2,200	LF	\$	\$

LINE NO.	SPEC NO.	ITEM DESCRIPTION	EST. QTY	UNIT	UNIT PRICE	AMOUNT
45	GDOT 402-1	RECYCLED ASPHALT CONCRETE 12.5MM SUPERPAVE, GROUP 2, INCLUDING BITUMINOUS MATERIAL & HYDRATED LIME	9,170	TON	\$	\$
46	GDOT 407-1	SEALING CRACKS IN BITUMINOUS PAVEMENT - ALL SIZES	3,850	LF	\$	\$
47	GDOT 615-1	JACK OR BORE PIPE, 8-INCH DUCTILE IRON	1	LS	\$	\$
48	GDOT 670-1	WATER MAIN, 8-INCH DUCTILE IRON PIPE	1,575	LF	\$	\$
49	GDOT 670-2	GATE VALVE, 8-INCH	3	EA	\$	\$
50	GDOT 670-3	TAPPING SLEEVE AND VALVE, 8-INCH	1	EA	\$	\$
51	GDOT 670-4	FIRE HYDRANT	3	EA	\$	\$
52	GDOT 670-5	INSTALL DOUBLE DETECTOR CHECK VALVE ASSEMBLY, WITH VAULT	1	EA	\$	\$

TOTAL BASE BID: (Sum of Lines 1 thru 52)

_____ \$ _____
 (State in words on the line above) (In figures)

ADDITIVE BID NO. 1

LINE NO.	SPEC NO.	ITEM DESCRIPTION	EST. QTY	UNIT	UNIT PRICE	AMOUNT
1	S-180-1	PAVEMENT MILLING, 0"-2" DEPTH, INCL. MILL TIES	4,110	SY	\$	\$
2	P-603-1	BITUMINOUS TACK COAT	430	GAL	\$	\$
3	GDOT 402-1	RECYCLED ASPHALT CONCRETE 12.5MM SUPERPAVE, GROUP 2, INCLUDING BITUMINOUS MATERIAL & HYDRATED LIME	500	TON	\$	\$

TOTAL ADDITIVE BID NO. 1: (Sum of Line 1 thru 3)

_____ \$ _____
 (State in words on the line above) (In figures)

ADDITIVE BID NO. 2

LINE NO.	SPEC NO.	ITEM DESCRIPTION	EST. QTY	UNIT	UNIT PRICE	AMOUNT
1	P-152-1	UNCLASSIFIED EXCAVATION	1,350	CY	\$	\$
2	P-209-1	CRUSHED AGGREGATE BASE COURSE	930	CY	\$	\$
3	P-603-1	BITUMINOUS TACK COAT	1,340	GAL		
4	GDOT 402-1	RECYCLED ASPHALT CONCRETE 12.5MM SUPERPAVE, GROUP 2, INCLUDING BITUMINOUS MATERIAL & HYDRATED LIME	720	TON	\$	\$

TOTAL ADDITIVE BID NO. 2: (Sum of Line 1 thru 4)

_____ \$ _____
 (State in words on the line above) (In figures)

These quantities are approximate and may be increased or decreased as to any and all units as necessary to complete the construction of said Project without entitling the Contractor to any claim for extra compensation because of any injury, damage, or delay he may sustain on account of such increase or decrease. The Contractor shall be entitled to compensation on the foregoing unit prices only on the quantities of materials actually furnished and work actually done as determined and approved in writing by the County through an inspection of the work completed. In no event shall the County be liable for payment in excess of the total Bid amount of \$ _____ (Insert same "TOTAL BID" figure as listed on the foregoing page) without proper prior written authorization via Change Order from the County. The Total Bid includes and encompasses the cost of all labor, materials, equipment, tools, supervision, scheduling, safety program, coordination, engineering, testing, surveys, layout, cleanup, and other things and services required to complete the entire Project in strict conformity with the Drawings, Specifications, the Contract, and all addenda and authorized written clarifications issued prior to the Bid date. Without limitation, the Total Bid also includes all applicable sales and use taxes, fees, temporary lighting, security for the site, heating and cooling, temporary utilities, freight costs, handling costs, permit costs, field and main office

costs, bond premiums, insurance premiums, direct and indirect administrative costs, overhead, and profit.

Bidder has examined the site of the proposed Work and all documents comprising the Contract, and is satisfied as to the conditions to be encountered in performing the work and as to the requirements of the Contract.

No Bid may be revoked or withdrawn until sixty (60) days after the time set for opening the Bids.

Attached hereto is Bid Bond made by _____, a surety company listed in the most recent US Treasury Circular No. 570 and licensed to write surety bonds in the State of Georgia, payable to DeKalb County, Georgia (or an official bank check), in the amount of ten percent (10%) of the above Bid, to-wit: \$_____.

If this Bid shall be accepted by DeKalb County and the undersigned shall fail to execute a satisfactory contract in the form of said proposed Contract, give satisfactory Performance and Payment Bonds, or furnish satisfactory proof of the insurance required, as stated in the Instructions to Bidders within ten (10) days from the Notice of Award of the Contract, then the County may at its option, determine that the undersigned abandoned the Contract and thereupon this Bid shall be null and void, and the sum stipulated in the attached Bid Bond (or an official bank check) shall be forfeited to the County as liquidated damages.

Bidder declares his intent to subcontract the portion of the Work as below stated. Bidder understands and agrees that the use of any Subcontractor not listed below shall be strictly prohibited without prior written approval from the County. *(List names of all subcontractors and the work to be provided by the subcontractor on the lines provided below.)*

Bidder further declares that the full names and residence addresses of all persons and parties interested in the foregoing Bid as principals are as follows:

Bidder declares further that it is ☐ / is not ☐ a DeKalb County Firm.

Signed, sealed, and dated this _____ day of _____, 20____.

By: _____ (SEAL)
Signature

Print Name of Signer

Title of Signer

Name of Business Entity Submitting Bid

Bidder's Street Address

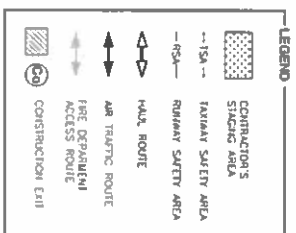
Bidder's City, State and Zip Code

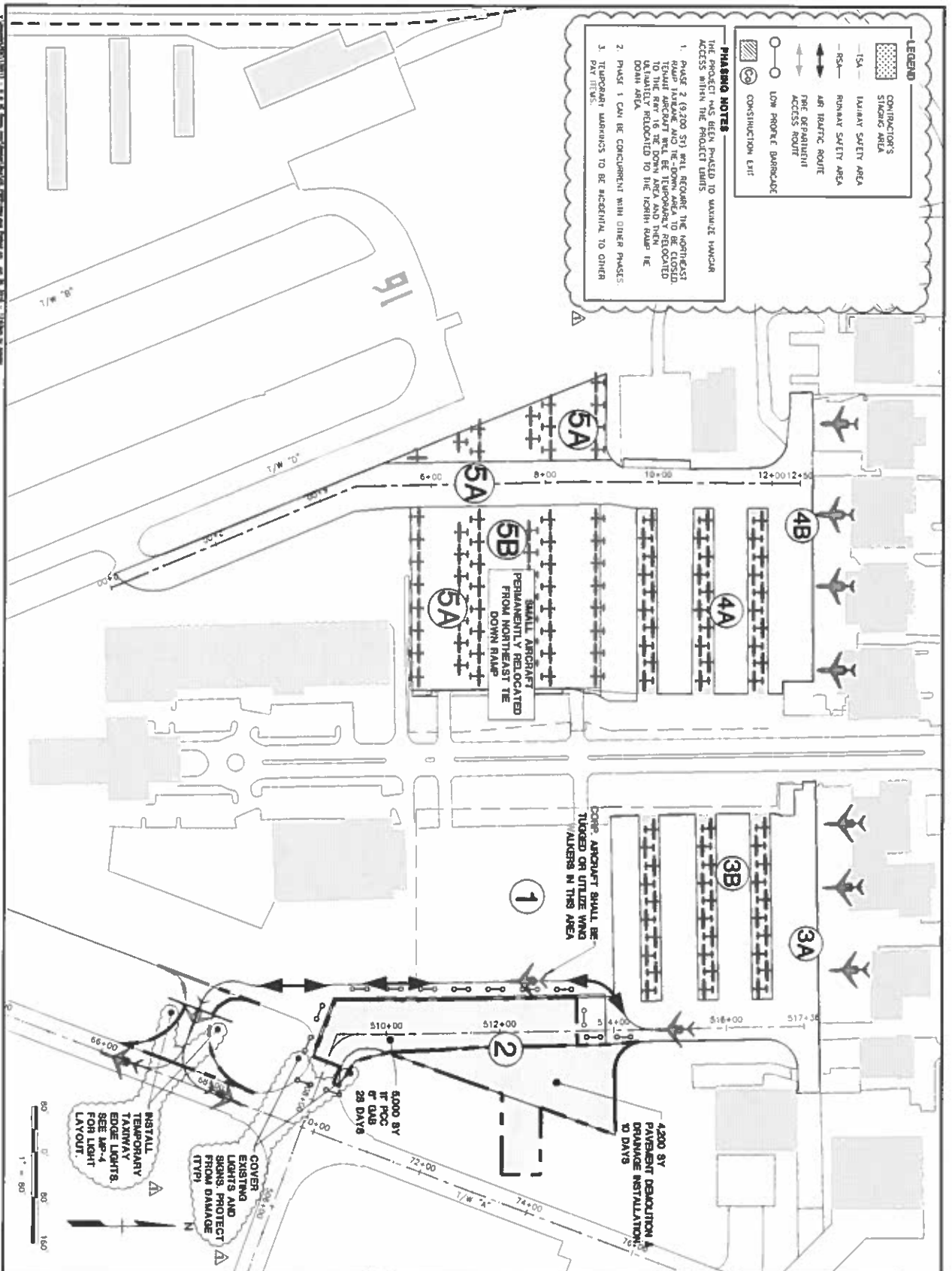
Bidder's Phone Number

Bidder's Fax Number

Bidder's E-Mail Address

- NOTES**
1. THE PROJECT HAS BEEN PHASED TO MAINTAIN UNHINDERED ACCESS WITHIN THE PROJECT LIMITS.
 2. PHASES MUST BE PERFORMED IN SEQUENCE TO MAINTAIN ACCESS TO THE AIRPORT ALONG THE ENTIRE PORTION OF THE AIRPORT.
 3. CONTRACTOR SHALL COMPLETE ALL WORK WITHIN EACH PHASE PRIOR TO MOVING ON TO ANOTHER PHASE UNLESS APPROVED BY THE DISTRICT.





Michael Baker INTERNATIONAL

2001 Project Number: APR00-XXXX-XX(090) DEKALB

DATE: APRIL 2018

SCALE: 1" = 80'

PROJECT: PROJECT SAFETY AND PHASING PLAN - PHASE 2

LOCATION: NORTH AND NORTHEAST RAMP PAVEMENT IMPROVEMENTS

DEKALB PEACHTREE AIRPORT

DEKALB COUNTY, GEORGIA

2001 Project Number: APR00-XXXX-XX(090) DEKALB

DATE: APRIL 2018

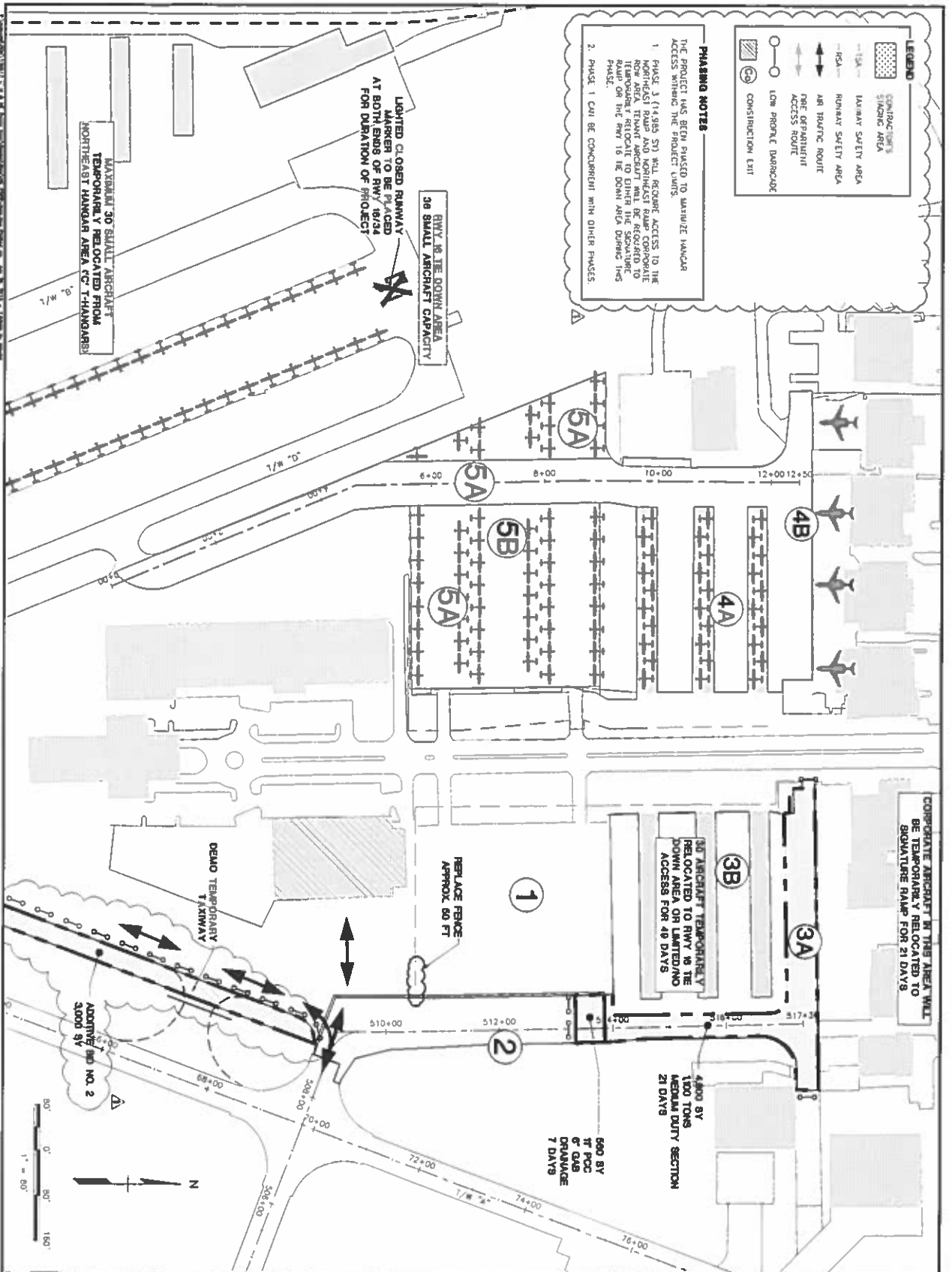
SCALE: 1" = 80'

PROJECT: PROJECT SAFETY AND PHASING PLAN - PHASE 2

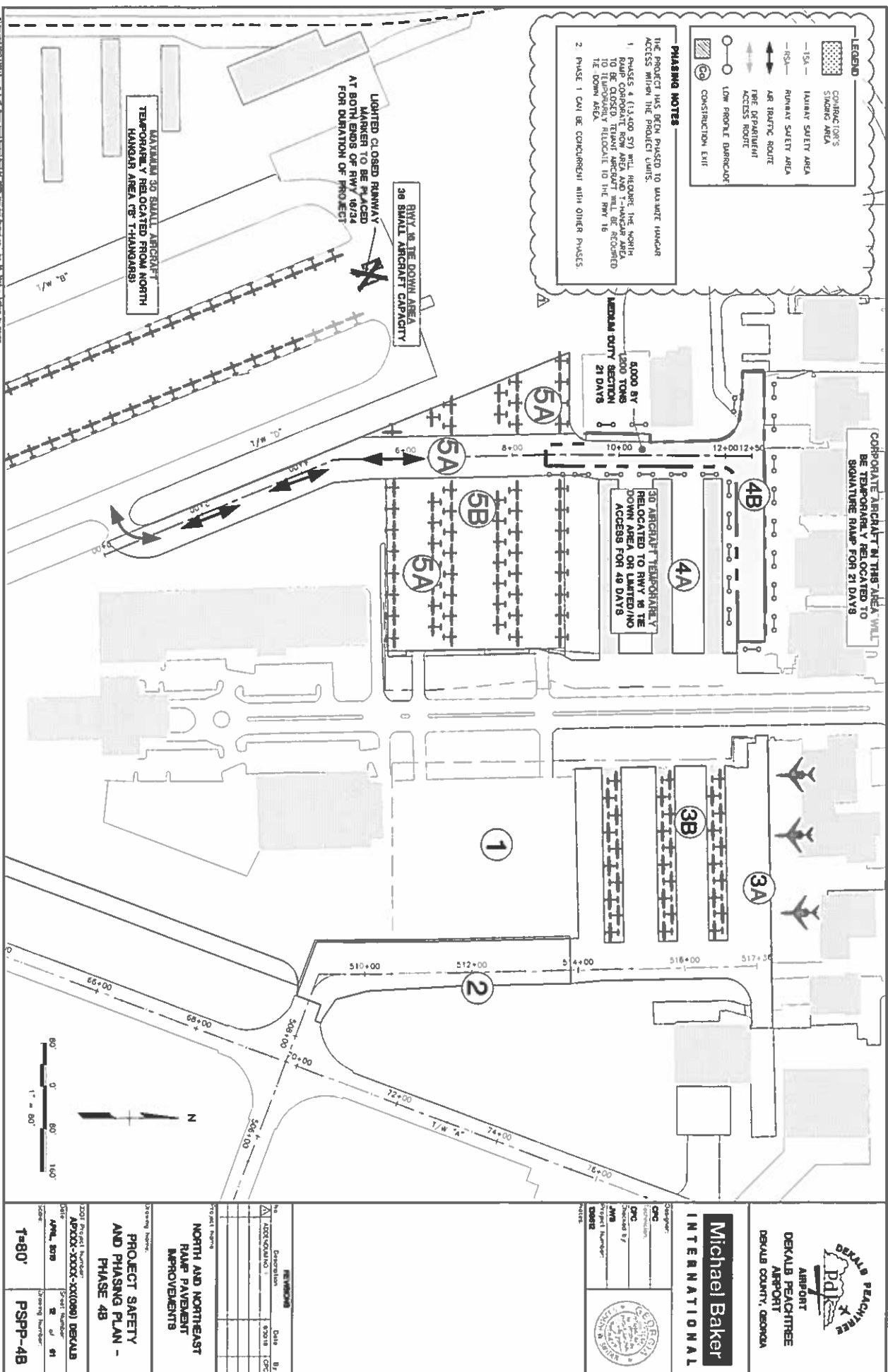
LOCATION: NORTH AND NORTHEAST RAMP PAVEMENT IMPROVEMENTS

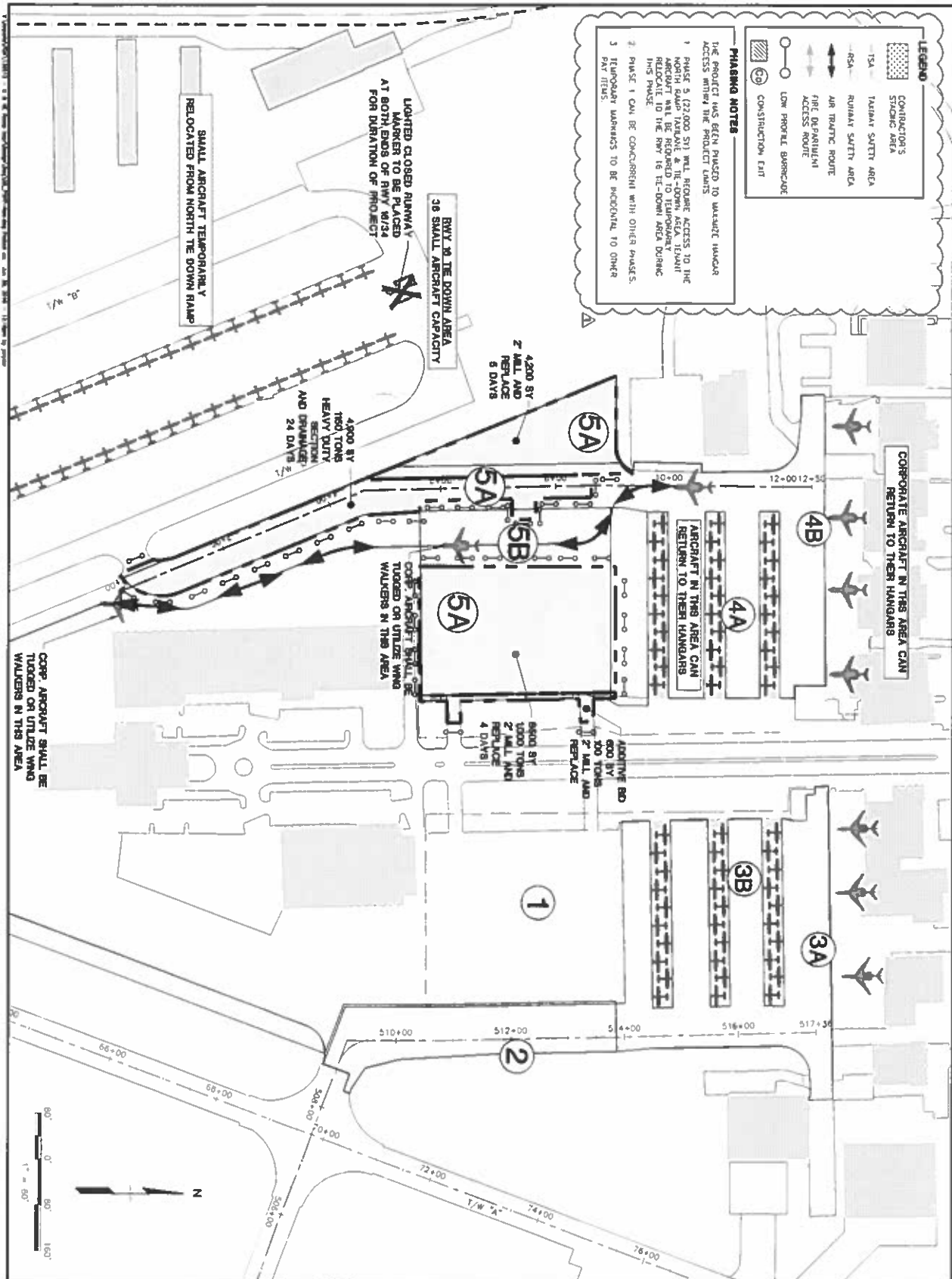
REVISIONS

No.	Description	Date	By
1	ADDED NO. 1	4/20/18	CAC



Michael Baker INTERNATIONAL		DEKALB PEACHTREE AIRPORT DEKALB PEACHTREE AIRPORT DEKALB COUNTY, GEORGIA
PROJECT SAFETY AND PHASING PLAN - PHASE 3A	APPROVED Date: 8/1/18 By: [Signature]	APPROVED Date: 8/1/18 By: [Signature]
1"=80'	PSP-3A	APPROVED Date: 8/1/18 By: [Signature]





Michael Baker INTERNATIONAL

PROJECT: NORTH AND NORTHEAST RAMP PAVEMENT IMPROVEMENTS

PHASE 5A

DATE: APRIL 2018

SCALE: 1"=80'

PROJECT NUMBER: PSPP-5A

DEKALB PEACHTREE AIRPORT

DEKALB COUNTY, GEORGIA

PROJECT NUMBER: 1000000001

DATE: 8/2018

SCALE: 1"=50'

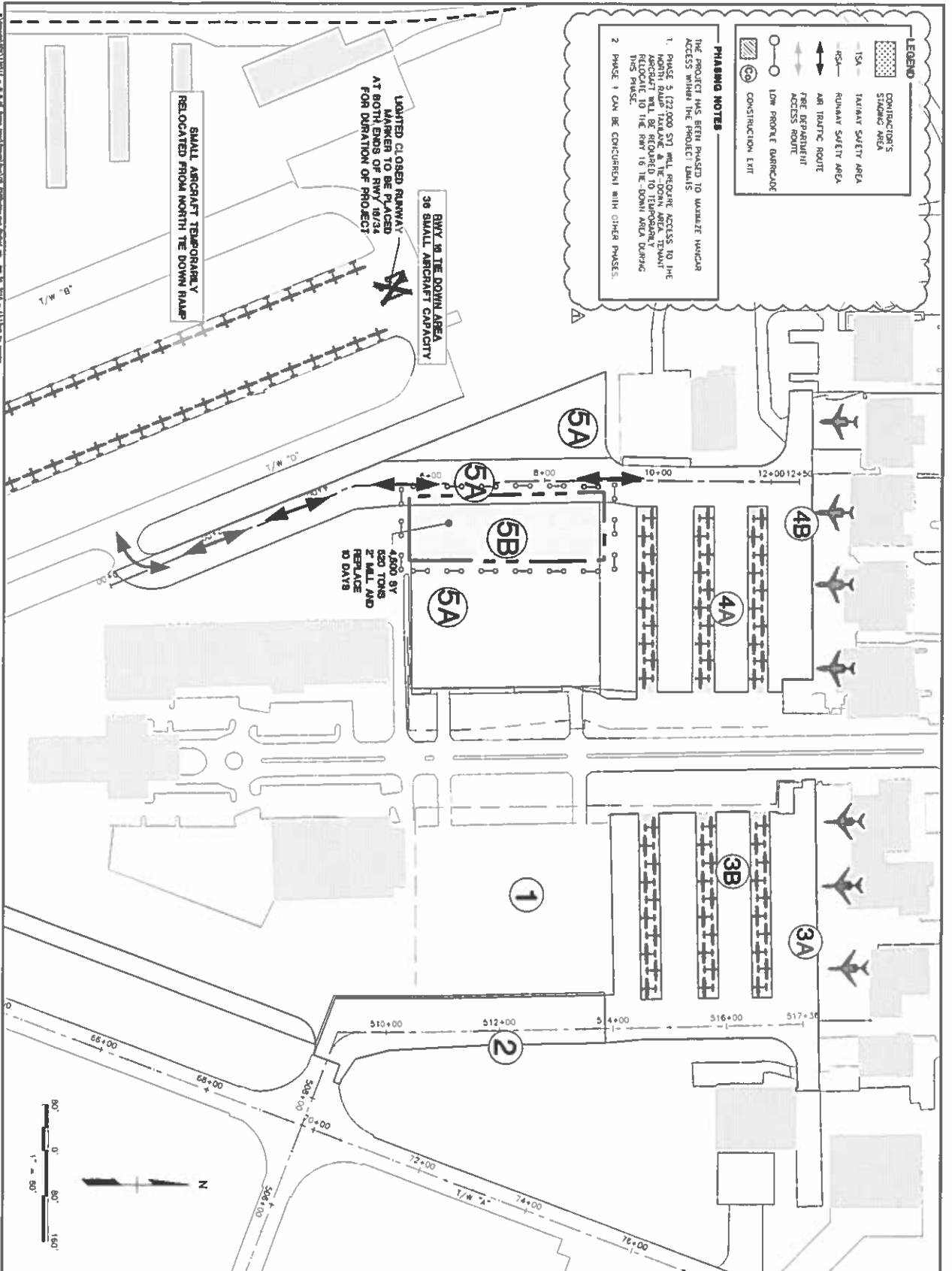
DEKALB PEACHTREE AIRPORT

DEKALB COUNTY, GEORGIA

PROJECT NUMBER: 1000000001

DATE: 8/2018

SCALE: 1"=50'



LEGEND

- CONTRACTOR'S STAGING AREA
- TAXIWAY SAFETY AREA
- RUNWAY SAFETY AREA
- AIR TRAFFIC ROUTE
- PER APPROPRIATE ACCESS ROUTE
- LOW PROFILE BARRICADE
- CONSTRUCTION EXIT

PHASING NOTES

THE PROJECT HAS BEEN PHASED TO MAXIMIZE MAJOR ACCESS WHILE THE PROJECT DRAWS

1. PHASE 5 (122,000 S.F.) WILL PROVIDE ACCESS TO THE AIRCRAFT WILL BE RELOCATED TO TEMPORARILY RELOCATE TO THE RWY 16 THE DOWN AREA DURING THIS PHASE.

2. PHASE 1 CAN BE CONCURRENT WITH OTHER PHASES.

Michael Baker INTERNATIONAL

DESALB PEACHTREE AIRPORT
DESALB COUNTY, GEORGIA

PROJECT SAFETY AND PHASING PLAN - PHASE 5B

North and Northeast Ramp Pavement Improvements

Scale: 1"=80'

PSPP-5B

REVISIONS

No.	Description	Date	By
1	ISSUED FOR CONSTRUCTION	03/18	CH

Project Name: NORTH AND NORTHEAST RAMP PAVEMENT IMPROVEMENTS

Project Number: PSPP-5B

Scale: 1"=80'

Sheet Number: 1 of 1

Drawn By: CH

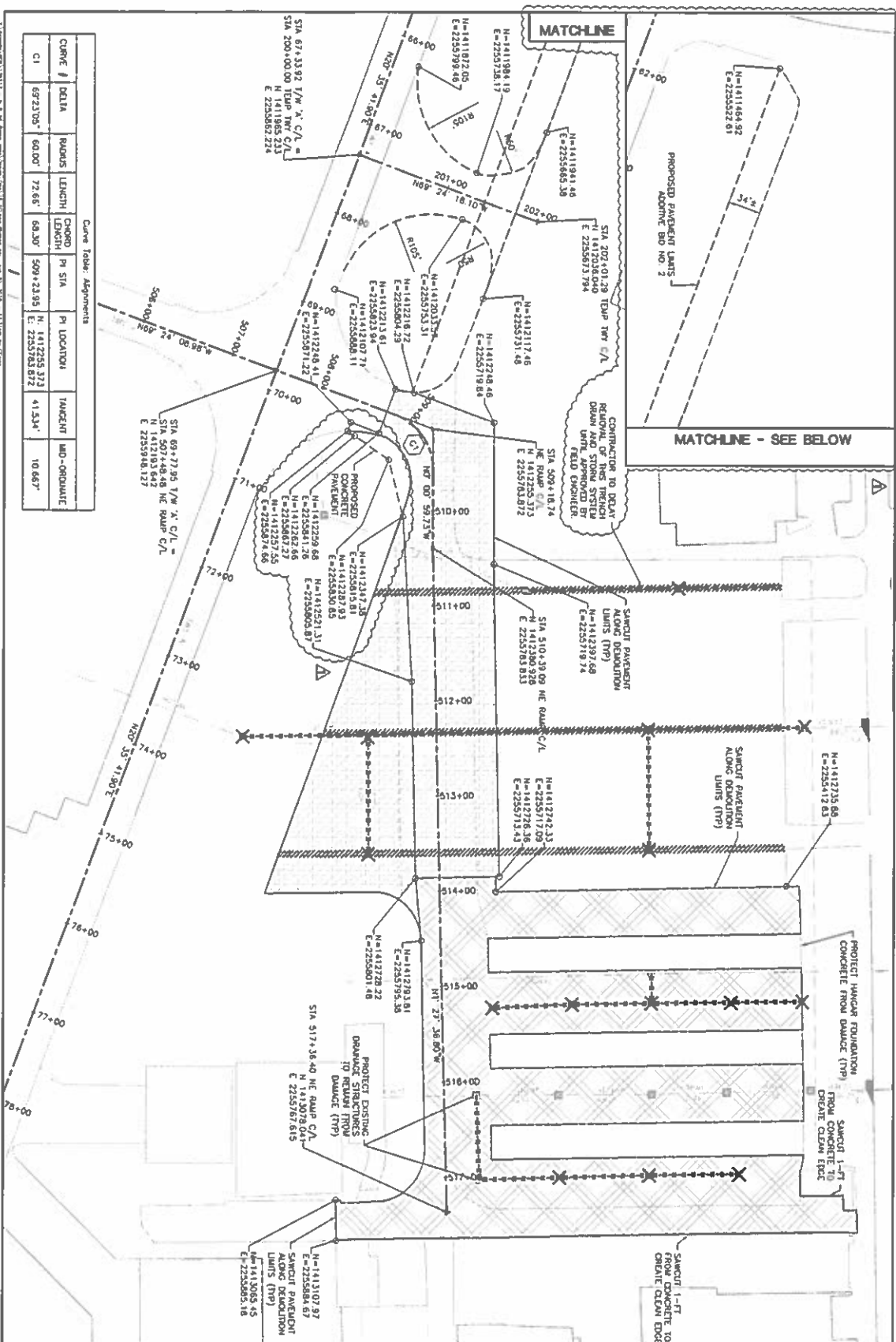
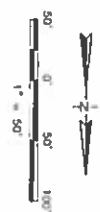
Checked By: JMS

Project Number: PSPP-5B

LEGEND

BITUMINOUS PAVEMENT REMOVAL
 BASE STONE TO REMAIN
 STONE REMOVAL
 TRENCH DRAIN REMOVAL
 STORM PIPE REMOVAL
 STORM DRAIN STRUCTURE REMOVAL
 MILL 2" ASPHALT (ADDITIVE BD)

MATCHLINE - SEE SHEET SD-1



Curve Table: Alignments

CURVE #	DELTA	PI POINT	LENGTH	PC STA	PT STA	LOCATIONS	TANGENT	MD-ORDINATE
C1	69.23705°	60.00'	72.66'	68.30'	509+23.95	N. 1412255.372 E. 2255783.872	41.534'	10.667'

1. Stationing from 1201.7 to 1201.8. 2. Stationing from 1201.7 to 1201.8. 3. Stationing from 1201.7 to 1201.8. 4. Stationing from 1201.7 to 1201.8. 5. Stationing from 1201.7 to 1201.8. 6. Stationing from 1201.7 to 1201.8. 7. Stationing from 1201.7 to 1201.8. 8. Stationing from 1201.7 to 1201.8. 9. Stationing from 1201.7 to 1201.8. 10. Stationing from 1201.7 to 1201.8.

DEKALB COUNTY
DEKALB PEACHTREE
AIRPORT
DEKALB COUNTY, GEORGIA

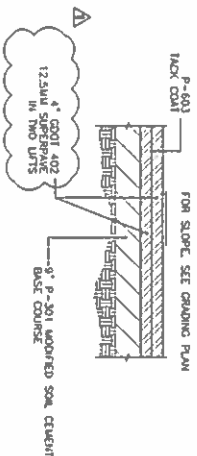
Michael Baker
INTERNATIONAL

Designer: **MB**
 Title: **CH**
 Checked by: **MB**
 Project Number: **10000-XXXX-XXXXXX**
 Sheet Number: **SD-2**

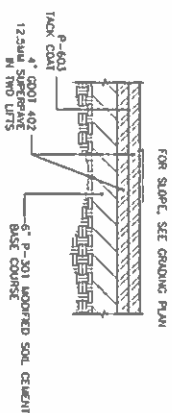
1. DRAINAGE TO BE REMOVED FROM AREAS TO BE RESURFACED SHALL BE BACK-FILLED WITH SPONGE GRANULAR FILL TO GRADE WITH P-209 CRUSHED AGGREGATE BASE COURSE.
2. DRAINAGE REMOVED FROM AREAS TO BE GRASSSED SHALL BE BACK-FILLED WITH SAND THIS BACK-FILL SHALL BE INCIDENTAL TO PIPE REMOVAL.
3. DRAINAGE REMOVED FROM AREAS TO BE GRASSSED SHALL BE BACK-FILLED WITH SPONGE GRANULAR FILL TO GRADE WITH P-209 CRUSHED AGGREGATE BASE COURSE.

Project Name: **STAKING AND DEMOLITION PLAN NO. 2**
 Drawing Number: **SD-2**
 Date: **APRIL 2018**
 Scale: **1" = 50'**

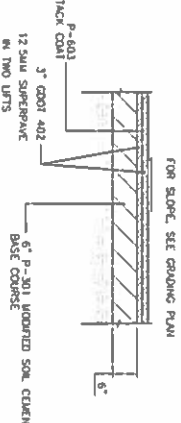
NOTE: CONTRACTOR SHALL DELAY PLACING THE LAST LIFT OF EACH PHASE UNTIL DIRECTED BY THE ENGINEER SO NO DAMAGE IS DONE TO THE FINAL ASPHALT SURFACE DURING CONSTRUCTION.



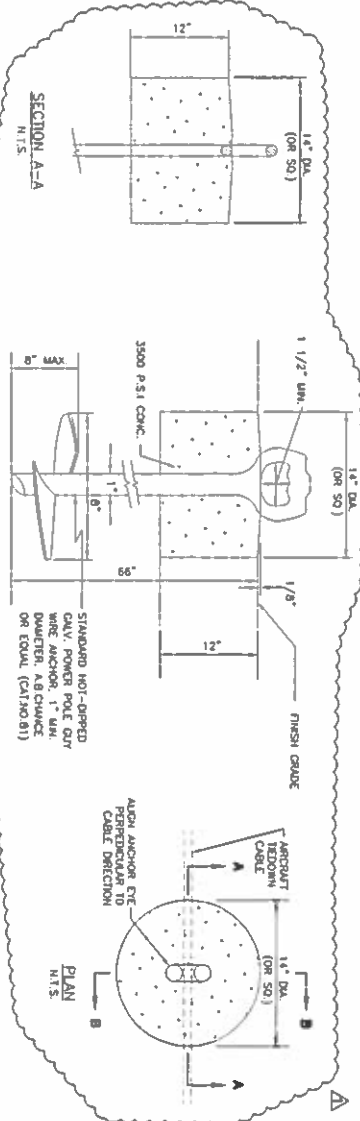
TYPICAL SECTION NO. 1 - AIRFIELD FLEXIBLE PAVEMENT HEAVY DUTY



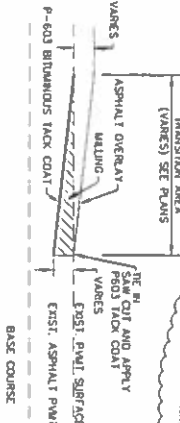
TYPICAL SECTION NO. 2 - AIRFIELD FLEXIBLE PAVEMENT (MEDIUM DUTY)



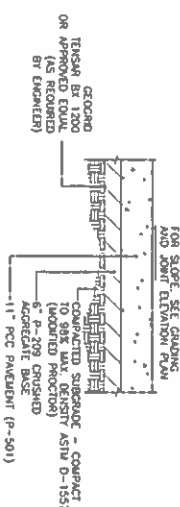
TYPICAL SECTION NO. 1 - AIRFIELD FLEXIBLE PAVEMENT (WENT-SUTTY)



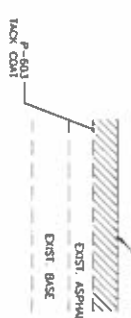
TE-DOWN ANCHOR DETAIL



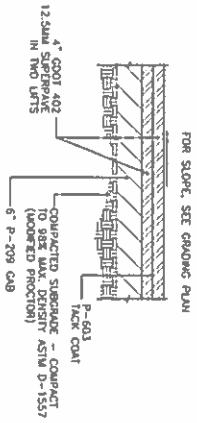
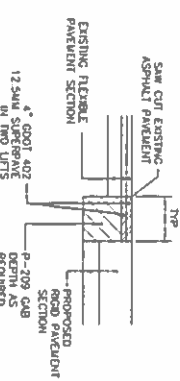
TYPICAL FLEXIBLE PAVEMENT TREATMENT



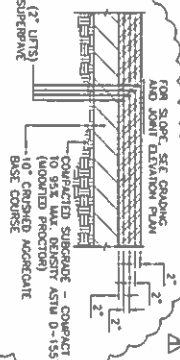
TYPICAL SECTION NO. 4 - ROAD PAVEMENT




TYPICAL SECTION NO. 6 PAVEMENT WITH 4 REPLACES

**TYPICAL SECTION NO. 6 - TEMPORARY TAXIWAY PAVEMENT**

**TYPICAL SECTION NO. 7 -
ASPHALT PAVEMENT TRENCH CUT FOR CONCRETE FORM**




ADDITIONAL BID NO. 2
TYPICAL SECTION NO. 8 - AIRFIELD FLEXIBLE PAVEMENT (HEAVY-DUTY)



**DEKALB PEACHTREE
AIRPORT**
DEKALB COUNTY, GEORGIA

Michael Baker

INTERNATIONAL



Owner: Port Authority of Atlanta

Project: Runway Extension

Location: DeKalb County, Georgia

Project Number: 1000-1000000000

Drawn by: ASB

Checked by: ASB

Approved by: ASB

Scale: ASB

Project Number: 1000-1000000000

Project Name: Runway Extension

No.	Description	Date	By
1	ADDITIONAL RUNWAY	10/1/00	ASB
2	ADDITIONAL RUNWAY	10/1/00	ASB
3	ADDITIONAL RUNWAY	10/1/00	ASB
4	ADDITIONAL RUNWAY	10/1/00	ASB
5	ADDITIONAL RUNWAY	10/1/00	ASB
6	ADDITIONAL RUNWAY	10/1/00	ASB
7	ADDITIONAL RUNWAY	10/1/00	ASB
8	ADDITIONAL RUNWAY	10/1/00	ASB
9	ADDITIONAL RUNWAY	10/1/00	ASB
10	ADDITIONAL RUNWAY	10/1/00	ASB

Project Name: NORTH AND NORTHEAST
RWY PAVEMENT
IMPROVEMENTS

Drawing Name: TYPICAL SECTIONS

Scale: ASB

Project Number: 1000-1000000000

Project Name: NORTH AND NORTHEAST
RWY PAVEMENT
IMPROVEMENTS

Drawn by: ASB

Checked by: ASB

Approved by: ASB

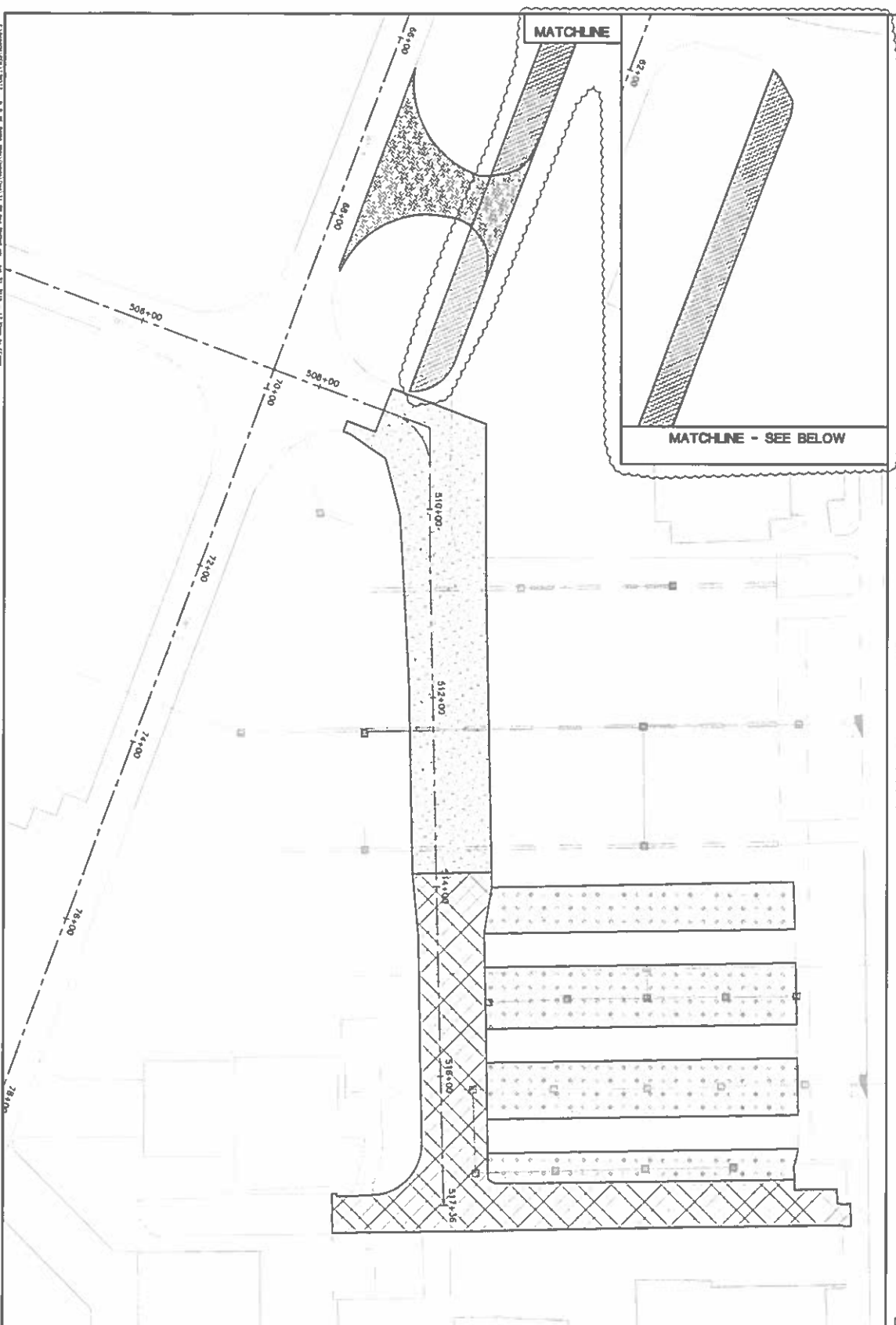
Scale: ASB

Project Number: 1000-1000000000

Project Name: NORTH AND NORTHEAST
RWY PAVEMENT
IMPROVEMENTS

LEGEND

	RECLAIMATION AND ASPHALT SEE HEAVY DUTY TYPICAL SECTION		RECLAIMATION AND ASPHALT SEE MEDIUM DUTY TYPICAL SECTION		RECLAIMATION AND ASPHALT SEE LIGHT DUTY TYPICAL SECTION		CRACK SEAL AND RECLAIMATION (BASE, BQ) MIL AND REPLACE (ADDITIONAL BQ)		GRADED AGGREGATE BASE AND PORTLAND CEMENT CONCRETE SEE ROAD PAVEMENT TYPICAL SECTION		ASPHALT AND GRADED AGGREGATE BASE SEE TEMPORARY HIGHWAY TYPICAL SECTION		ASPHALT AND GRADED AGGREGATE BASE SEE ADDITIONAL NO. 2 HEAVY DUTY TYPICAL SECTION
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Michael Baker INTERNATIONAL

Project: **DEKALB PEACHTREE AIRPORT**
DEKALB COUNTY, GEORGIA

Drawn by: **CHC**
Checked by: **CHC**
Project Number: **50002**

DEKALB PEACHTREE AIRPORT
DEKALB COUNTY, GEORGIA

Michael Baker INTERNATIONAL

Project: **DEKALB PEACHTREE AIRPORT**
DEKALB COUNTY, GEORGIA

Drawn by: **CHC**
Checked by: **CHC**
Project Number: **50002**

REVISIONS

No.	Description	Date	By
1	ASPHALT AND GRADED AGGREGATE BASE	03/15/18	CHC

DEKALB PEACHTREE AIRPORT
DEKALB COUNTY, GEORGIA

Michael Baker INTERNATIONAL

Project: **DEKALB PEACHTREE AIRPORT**
DEKALB COUNTY, GEORGIA

Drawn by: **CHC**
Checked by: **CHC**
Project Number: **50002**

DEKALB PEACHTREE AIRPORT
DEKALB COUNTY, GEORGIA

Michael Baker INTERNATIONAL

Project: **DEKALB PEACHTREE AIRPORT**
DEKALB COUNTY, GEORGIA

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Checked by: **CHC**
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DEKALB PEACHTREE AIRPORT
DEKALB COUNTY, GEORGIA

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Project: **DEKALB PEACHTREE AIRPORT**
DEKALB COUNTY, GEORGIA

Drawn by: **CHC**
Checked by: **CHC**
Project Number: **50002**

